

MINES, MINING, LOCAL STOCKS AND COPPER

Production at Capacity is Record for Local Mines This Week

With Resumption of Oliver and the Placing of More Labor in Copper Queen Property, Record of Previous Years in Production for the Warren District Promises to Be Outdone By a Considerable Margin; District is Very Good.

Copper Queen Will Start Concentrating the Sacramento Shaft in Next Few Days; Will Continue to Use Hoist While Work Is Being Done; Test Section Has Shown How Work Can Be Carried Out Successfully; C. & A.'s Fine Showing.

Bisbee and the Warren District may be classed as among the most prosperous places in the entire country. The three large companies, operating here, are practically back on their old standards of production and prosperity is the key note of it all.

Copper Queen has been slowly adding men whenever there became room for them and by tomorrow the ore production will have reached as high, or a higher point than at any time in its history.

FOR THE YOUNGSTERS.

That the Copper Queen company has the interests of the community at heart is illustrated by its announced intentions of constructing a baseball ground for the boys of the community on a vacant lot between the Holbrook shaft and the mine office formerly occupied by a pile of timbers. The ground will be properly graded and fenced off and a first class diamond put in. This generous action on the part of the Copper Queen will meet a most urgent need of the juvenile element which has been without suitable opportunity to indulge in the national pastime.

WILL CONCRETE SACRAMENTO.

It has been definitely decided that the Sacramento central hoisting shaft will be concreted from the 1700 level to the surface, making it a fire-proof shaft. The work will commence as soon as the material already ordered, arrives. It is anticipated that 60 days will be required to complete the work.

A preliminary test made in this shaft proved that the work could be executed in a satisfactory manner, according to plans already completed, both from the standpoint of expense and workmanship. Concrete to the extent of 25 feet was put in and found satisfactory and within the estimate of cost.

A novel feature of this work is that it will be the first instance of a shaft being concreted and, at the same time, kept producing. There is no record of any shaft ever having been concreted and kept in operation; so, if this can be done, it will mark an era in shaft concreting. Officials express complete confidence that this feat will be carried out perfectly.

This record achievement is made possible by the type of form adopted in concreting the shaft. After the concrete is put in place, all that becomes necessary will be to connect the strainers in the shaft and proceed to the work of hoisting. The concrete will be dropped through a 4-inch pipe and blown into place by compressed air.

Another novel feature is that the work will be done from skips and cages, no platforms being put in the shaft. Storage bins will be built for sand and rock at the mouth of the adit level. From these bins the sand and rock will be conveyed to the mixer and dropped down the shaft. The work will be prosecuted in three places in the shaft, the 600 level, 1200 and 1700 level.

George Meyers, chief master mechanic, will be in charge of the operations in the Sacramento. Meyers is extremely expert on concrete work. The quarry will be opened behind the Spray mine and a crusher plant installed to crush rock for the concrete.

CONVEYING SYSTEM COMPLETED.

A conveying system has just been completed on the central sawmill which carries all the timber, as it arrives from the mill, to the railroad cars for distribution. Another sharpening machine has been installed at the central drill sharpening plant, thus making this one of the most efficient in any mining community.

At the Uncle Sam a new steel head frame has been completed and a new steel engine house is in process of construction. The bed for the new hoist has been put in and it is expected that the hoist will be ready for operation in about two weeks.

At the Czar shaft auxiliary skips will be installed under the cages for hoisting wastes and lead-silver ores, of which there is a large tonnage in the Czar and Southwest. These should be in operation in about 30 days.

All the mine buildings at the Lowell are being painted and the foreman's office remodeled and moved to new quarters.

C. & A. LOOKS FINE.

Thanks to record-breaking time in shipment of necessary machinery from Michleann, C. & A. will be able to open the Oliver shaft earlier than was expected. It will open up this week with at least a hundred men, and shipment will begin toward the week end.

C. & A. will then be employing no less men, and its ore production will be no less than in the hey-day of the most prosperous times ever experienced in the Warren District.

For the month of April the company's production was 4,339,496 pounds, while for May the production was more than 5,700,000 pounds, a record for the company. With the increased tonnage of ores handled the costs would be materially reduced over the period when the company was operating at about half normal capacity, so that at the present time Calumet & Arizona, on the prices now quoted for copper, must be earning fully \$12 per share per annum. This is an extraordinary time in copper mining, however, and the big price cannot be viewed as a permanent one, although it bids fair to continue for a considerable period. With the end of the wars now in progress, and which will not end for a year or more according to the best authorities, there will be a big demand for the metal. Germany will have been completely exhausted of her supply and there will not be a pound of scrap even that will be available. Germany is the greatest user of copper in times of peace, and she will

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PROMINENT NEW YORKERS CONTRIBUTE TO FUND FOR BIGGER NAVY CAMPAIGN



Left to right, top: E. H. Gary and Jacob H. Schiff; bottom: J. Pierpont Morgan and James Gordon Bennett.

Many men of national prominence have contributed liberally to the fund which is being raised to push the campaign for a \$500,000,000 naval appropriation by the next congress "to provide the United States with what it has already paid for but never received—an adequate navy." Among those who have given \$1,000 or more are J. Pierpont Morgan, Elbert H. Gary, Jacob H. Schiff, and James Gordon Bennett, the New York editor.

KNOW THY COUNTRY

I—Introductory

"Know America" is a slogan that should ring out from every school room, office, farm and shop in this nation. No man can aspire to a higher honor than to become a capable citizen, and no one can merit as distinguished a title until he is well informed of the resources, possibilities and achievements of our country.

This is a commercial age and civilization is bearing its most golden fruit in America. We are noted for our industrial achievements as Egypt was noted for her pyramids; Jerusalem for her religion; Greece for her art; Phoenicia for her fleets; Chaldea for her astronomy and Rome for her laws. Likewise we have men who will go down in the world's history as powerful products of their age. For standing at the source of every gigantic movement that awakens civilization is a great man. The greatest minds travel in the greatest direction and the commercial geniuses of this age would have been the sculptors, poets, philosophers, architects, and artists of earlier civilizations.

As Michael Angelo took a rock and with a chisel hewed it into the image of an angel that ever beckons mankind upward and onward, Hill took the desert of the Northwest and with bands of steel made it blossom like a rose, dotted the valleys with happy homes and built cities in waste places.

As Gutenberg took blocks of wood and whittled them into an alphabet and made a printing press that flashed education across the continent like a ray of light upon a new born world, McCormick took

a bar of iron and bent it into a reaper and with one sweep of his magic mind broke the shackles that enslaved labor of generations yet unborn, and gave mankind freedom from drudgery, and lifted the human race into a higher zone of life.

As Nelson organized the English navy and made England mistress of the sea, enabling the British Isles to plant her flag upon every continent washed by the ocean's waves, and to make footstools of the islands of every water.

Morgan organized a banking system that has made America master of the world's finances, brought kings to our cashier's windows, the nations of the earth to our discount desks and placed under the industries of this nation a financial system as solid as the Rock of Gibraltar.

There is no study quite so interesting as progress; no sound so magic as the roar of industry and no sight so inspiring as civilization in action. A full realization of America's part in the great events of the world past, present and future will thrill every human heart with pride, patriotism and faith in Republican institutions.

Through the courtesy of the Agricultural and Commercial Press Service, the readers of this paper will be permitted to study America; her agricultural, manufacturing and mineral development, mercantile, banking and transportation systems which are the wonder of the world. The first article of the series will deal with transportation and will appear at an early date.

WOULD USE INFORMATION.

ANNAPOLIS, June 19.—Two naval academy midshipmen admitted that they had under certain conditions they would use stolen examination papers for their own advantage. The admissions were all the more surprising because they came from men not implicated in the charges being investigated by the court of inquiry.

Daniel Appleton of the former third class said he thought half the class might be parties to receiving and using stolen information. Hersh Wynman disagreed with his classmate as to half the class and said he would not do so unless in the "wooded" or low mark section and needed help to make a passing mark.

PAID RESPECT TO POLICE

EL PASO, June 19.—J. R. Wimber, who carries papers on his person showing that he is at present a parole convict sentenced to life imprisonment in the Arizona state penitentiary at Florence, Arizona, was arrested last evening on El Paso street by the city police. He was charged with carrying a pistol when taken to the station. According to the police he cursed the whole force and almost everything else in the city. He had in his possession a large 45-cal. revolver, a belt filled with cartridges and a scabbard. According to papers in his pocket he was sentenced to the Arizona prison for murder, had done seven years, and was paroled by Governor Hunt. Other papers he carried showed that in 1885 he was a brakeman on the Texas & Pacific railway.

ARIZONA MINES' COLLEGE HAS ADVANTAGES

Field Work, Short Courses and Opportunity of Employment Are Features Which Cannot Be Excelled Elsewhere.

TUCSON, June 19.—Plans for several statutes which are unique in the mining educational world, and which are certain to add materially to the prestige and importance as well as to the attendance of the College of Mines of the University of Arizona, have recently been announced by Professor Willis of that school. Three of the new features planned are not only unique, but of such a nature that they can not be carried out as successfully at any other school of mines in this country, and they are such that they should, during the next few years, aid in placing the local institution in the front rank of technical schools.

These three features, which will add materially to the practical usefulness of the local school and attract a large number of students from all parts of the country, are: Field work for senior students, occupying half of the time spent in the fourth year of the course, and an arrangement with the mining companies of the state whereby positions are practically guaranteed graduates of the school as well as summer positions for the undergraduates.

Three Years' Investigation.

The plans for these new departures have been announced after three years of investigation and consideration on the part of Professor Willis and with the co-operation and approval of both Dr. Wilde and President von Klein Smid. In explaining the new system of short courses, Professor Willis said:

"Many schools of mines have given short courses but these courses do little more than give a thirst for further knowledge, which, of course, is a desirable objective. The usual two weeks to three months short course endeavors to cover the whole field of mining within that time. It is, therefore, a group of lectures covering a bare outline of the whole industry with no complete knowledge of any one subject or any one branch of the industry. It is extensive training and usually given to men whose minds are prepared only for intensive training. It is unusual to find men that are interested in all branches of mining, being interested possibly in prospecting but caring nothing about the vagaries of rock drilling; or being interested in underground work but not in milling practice."

Short Course Planned.

"With the idea of correcting this fault there is to be given at the Arizona College of Mines eighteen two weeks short courses, each subject to be given alone and intensively for two weeks with the theory and practice, lecture and laboratory, and with work in the necessary affiliated subjects. This one subject can be thoroughly covered by the student. Affiliated subjects may follow each other in regular order and the student may spend two, four, six, eight or any number of weeks, each course being distinctly related to the course both before and after it. Instruction will be given in the following order: Elementary mineralogy and blowpipe analysis, elementary surveying, elementary geology and petrography, field geology, prospecting, assaying, cyanidation, concentration, mine blacksmithing, mine timbering, practical mining other than underground, practical underground mining, use and care of rock drills, electricity applied to mining, mechanics applied to mining, sea engines, cost accounting and management, and copper smelting practice."

Practical Course.

"The arrangement is so designed that students wishing to take allied subjects take them consecutively. A student whose chief aim is prospecting should take the first five or six courses. One interested in the mechanical end of mining should take courses thirteen to sixteen. One interested in the extraction of metals should take courses six to nine, or one preparing for a position as shift boss should take from ten to thirteen, and so on through the combinations. The field will be used largely as a laboratory and the work will be as practical as possible."

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AMERICAN NURSES THANKED BY CZAR



Miss M. F. Farley (top) and Miss M. F. Bowman.

The Misses M. F. Farley and M. F. Bowman, Red Cross nurses, have just arrived in San Francisco, completing a trip around the globe after caring for wounded soldiers in Russian army hospitals. Shortly before they left Russia the Czar thanked them personally for their work in behalf of the wounded.

SEVERE MINE TAX IS LIGHTENED AS RESULT OF PROTESTS FILED

American Mines Owners in Mexico Said to Have Been Responsible for Lightening Taxes in Parts of Old Mexico.

Influence brought to bear in Washington upon the administration has resulted, in turn, in pressure being brought upon Carranza and Villa with the result that they recently abrogated their proclamations of last March placing a prohibitory tax rate on mines and an export duty upon all minerals which was declared by miners to be little less than confiscatory. For this reason, Sonora mining men have once again taken heart, and when conditions allow will undoubtedly reopen their properties.

Under the ruling abrogated each side claimed the right to the mineral taxes and all those not paying were to have their mining properties confiscated. This would have meant the payment of double tax or the loss of many mining properties upon which millions of foreign capital had been expended.

Locally, it is understood, mining people refused to pay the confiscatory taxes and awaited eventualities. However, no seizures of properties by either faction were made, it is understood. The El Paso branch of the Mexican Mine Owners' association appealed to Washington with the result above given.

The officers and ladies of the Ninth Cavalry stationed at Douglas, have issued invitations for a dance to be held at the Army Pavilion on June 26, and a number of Bisbee people have been recipients of invitations.

Bisbee's streets are crowded these days with pretty girls who are spending their vacations in Bisbee. Among others are Misses Florence and Barbara Watkins, Gladys Hodgson, Catherine Hoy, Gladys Woods and Edith Chapman.

F. E. Coles, Emil Marks, Sam Frankenburg, Frank Duval and Maynard Newman drove out to the Huachuca last Sunday to spend the day. Mrs. Frankenburg returned with the party and Mesdames Coles and Newman con-
thine in the mountains.

TOM REED MILLS BIG TONNAGE LAST YEAR

Big Oatman Mine Handled 46,995 Tons at Net Profit of \$12.11 for Every One; Large Tonnage Still in Sight.

(By William P. De Wolf)

OATMAN, June 19.—During the fiscal year ending March 31 last, the Tom Reed Gold Mines company mined and milled 46,995 tons of ore of an average value of \$21.33 per ton, according to the sixth annual report of the company, just issued. The gold recovered totaled \$1,002,406.66, the tally being approximately identical with the forecast made by your correspondent in his dispatches of several weeks ago covering the annual meeting of the Tom Reed stockholders. Mining, milling, administration and depreciation charges totaled \$9.21 per ton, leaving the company a net profit of \$12.11 on every ton of ore treated.

The report of Mine Manager S. S. Jones conforms in every essential particular to the resume of mining and milling conditions as set forth in late April dispatches from this camp, and indicates that the physical condition of the mine is on a par with its standing in previous years. Dividends for the last fiscal year totaled 41 cents on the 900,000 shares outstanding, the total dividend being \$364,500. Since September 1910 the company has paid fifty-seven dividends totaling \$2,401,710.73, or \$2.61 per issued share. This sum represents approximately 1 1/2 cents per share per month for a period of nearly five years.

Large Tonnage in Sight.

In the mine stopes there are 20,000 tons of ore broken down and awaiting reduction. This ore has the same general average value as that milled during the last fiscal year. In the various stopes and levels there is an ore tonnage in sight sufficient to keep the company's 20-stamp mill in continual operation for the next two years. This ore reserve will, of course, be drawn upon throughout the current fiscal year. At the same time, however, new ore reserves will be established as development work progresses and the mine in every way be kept up to the splendid standard of efficiency and production which has characterized it under the present management.

Mining at great depth is to feature future development work and to that end an electric hoist of 150-horse power has been installed. It has hoisting capacity from a depth of 2000 feet. At that level, however, a winze has been sunk a depth of 125 feet, which gives the mine a mean working depth of 1875 feet. On the lower level of a large body of high grade milling ore is being worked which is adding materially to the gold output from the property. Though medium of levels, drifts and crosscuts the continuity of this ore body has been proven from a depth of 350 feet to a depth of 1975 feet. Research has also demonstrated that better ore is found below the contact of the new and the old andesite than elsewhere in the workings. The shaft is now to be sunk to a depth of 1250 feet, where the ore bodies will be opened to the north and south.

Installing Machinery.

The new electrical plant being installed at the property of the Orion Mining and Milling company will be started for the first time on July 1, and at the same time the shaft will be unwatered and mining operations resumed. In the latter connection it can be stated that mine developments will be prosecuted under conditions which indicate the mining pay ore in large tonnage within a few months. The machine equipment consists of a 50-horse power motor, a 300-cable foot compressor, a 75-horse power double drum hoist and a complete set of air pipes, rails, etc. etc. A plant of machinery is being installed at the main working shaft on the estate of the Oatman Gold Mining and Milling company, and at the same time the necessary mine buildings are being erected. The property lies

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